

Office Action Summary	Application No. 09/758,573	Applicant(s) ROMAN, KENDYL A.	
	Examiner Hau H. Nguyen	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-33 is/are pending in the application.
- 4a) Of the above claim(s) 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The response filed 3/27/2007 have been considered in preparing this Office action.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5-9, 11-23, 25-27 and 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al (U.S. 5,696,940 hereinafter "Liu") in view of Flurry (U.S. 5,684,968).

Liu teaches a method of increasing image processing performance by copying a first instance (The words "first instance" can be broadly interpreted as just the first data being transfer from I/O memory to the main memory) of an image data (*the input data from the I/O device 22 can be a video camera for capturing an image, a video monitor, printer, network port, etc, see col. 2, lines 40-41*) between a buffer (not shown, but would have been obvious to include as suggested by Flurry Fig. 14, item 1425, and col. 11, lines 24-26) in main memory (Fig. 1, main memory 14) and an I/O memory (RAM 20; *it is noted that Liu does not particularly called the RAM 20 an I/O RAM, however, the RAM 20 is used for storing the input data from the I/O device 22 before transfer into the main memory 14 and thus can be called an I/O RAM, see col. 1, lines 18-21*). Liu further teaches a FIFO buffer within the RAM 20 to store the input data from the I/O

device 22) by a DMA circuitry (18) that controls data transfers between the main memory (14) and I/O RAM (20). Liu further teaches a CPU 12 inherently includes the functionality of performing any kind of basic “CPU intensive operations” for a PC or any well known “host computer” can read data from main memory (14) and write the processed result into the main memory 14. However, Liu fails to explicitly suggest or teach “*explicitly copying a first instance of an image into a second copy of said image in a buffer in the main memory*”.

However, this is what Flurry teaches (col. 2, line 64 to col. 3, line 12). Flurry also teach the CPU access is made directly to the extra second copy of the data in memory and not to the first instance in said I/O RAM before performing CPU intensive operations. Therefore, it would have been obvious to one skilled in the art to utilize the method as taught by Flurry in order to enhance image manipulation without changing the original image.

For at least the above reasons, claims 1, 5, 12-18, 22, 23, 26, 27 and 30 would have been obvious.

As per claims 6-9 and 31-33, the combined system teaches how the image data is being copied (e.g. Flurry, Fig. 4, and its disclosure for how image is captured and acquired, and col. 4, lines 37-41 for DMA copying).

As per claim 11, Liu fails to explicitly teach said I/O RAM is associated with a video digitizer. However, this is taught by Flurry on col. 3, lines 50-54, video decoder. Therefore, it would have been obvious to combine Liu with Flurry in order to perform image or video operations on input data in digital formats.

As per claims 19 and 20, although Liu fails to teach the processor executes programs to enhance, compress/decompress, encrypt/decrypt, or reformat said image data, Flurry teaches the applications includes compressing and decompressing (col. 2, lines 44-61). Therefore, it would have been obvious to combine the teachings in order to reduce the data size, and thus reducing the bandwidth.

As per claim 21, although not taught by Liu, as cited above, Flurry teach the video digitizer to digitize and encode the video signal and transmitting the encoded video over the network (col. 2, lines 44-61).

As per claim 25, as cited above, Flurry teaches the processor perform compressing image data.

As per claim 26, as cited above, Flurry teaches the processor perform decompressing image data.

3. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al (U.S. 5,696,940 hereinafter "Liu") in view of Flurry (U.S. 5,684,968) as applied to claim 1 above, and further in view of Anderson et al (U.S. 6,338,119, hereinafter "Anderson").

The teachings of Liu and Flurry are given in previous paragraph of this Office action. However, the combined system fails to explicitly teach a L1 and L2 cache memory. It was old and well known and well used in the art to include a L1 and a L2 cache memory in order to speed up the system processing by access data locally from the cache instead of main memory. Furthermore, Anderson teaches a L1 (Fig. 1, 104)

Art Unit: 2628

and L2 (106) cache memory. It would have been obvious to one of ordinary skill in the art at the time the present invention was made to combine the teachings of Anderson into the combined system of Liu and Flurry in order to provide fast access to the storage device and thus improves the overall system performance because a cache is a much faster storage device than any other RAM for the CPU or other computation device. Therefore, at least claims 2-4 would have been obvious.

4. Claims 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al (U.S. 5,696,940 hereinafter "Liu") in view of Flurry (U.S. 5,684,968), and further in view of Cullen et al (6,592,629 hereinafter "Cullen").

As per claims 24 and 28, the teachings of Liu and Flurry are given above. However, the combined system fails to explicitly teach said processor executes programs to encrypt/decrypt said image data. These are what Cullen teaches. Cullen teaches remote document image storage and retrieval system for a multifunctional peripheral comprising a workstation (630) and a multifunction machine (140) includes a compress/decompress (252), an encrypt (253) and decrypt (254). It would have been obvious to one of ordinary skill in the art at the time the present invention was made to combine the teachings of Cullen into the combined system of Liu and Flurry in order to reduce overall storage space and provide fast and secure transmitted over the bus or network as taught by Cullen (col. 5, lines 16-63).

Response to Arguments

Applicant's arguments with respect to claims 1-9, 11-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is (571) 272-7787. The examiner can normally be reached on 8:30am-5:30pm Monday-Friday.

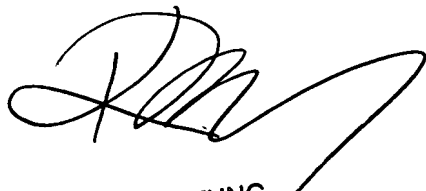
Art Unit: 2628

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H. Nguyen

6/8/2007



KEE M. TUNG
SUPERVISORY PATENT EXAMINER